

## WHAT IS CLAIMED IS:

1. A point-to-multipoint wireless access system comprising a wireless base station, a plurality of wireless subscriber's terminals, a plurality of down-link channels for transmitting data from said wireless base station to respective said wireless subscriber's terminals, and a plurality of up-link channels for transmitting data from respective said wireless subscriber's terminal to said wireless base station, wherein said down-link channels use a first wireless band and said up-link channels use a second wireless band.  
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2. The point-to-multipoint access system as defined in claim 1, wherein said wireless base station is connected to the internet through a communication network, each of said wireless subscriber's terminals is connected to a user's terminal through a user's Ethernet, and said first wireless band is higher than said second wireless band.  
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3. The point-to-multipoint wireless access system as defined in claim 1, wherein said wireless base station is connected to the internet through a communication network, at least one of said wireless subscriber's terminals is connected to a user server through an Ethernet, and said first wireless band is lower than said second wireless band.  
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4. The point-to-multipoint wireless access system as defined in claim 1, wherein said wireless base station has a gateway function, and each of

said subscriber's terminals is a wireless module connected to a data terminal.

5. The point-to-multipoint wireless access system as defined in claim 1, wherein said first wireless band is a sub-millimeter waveband or a millimeter waveband, and said second wireless band is a 2.4-GHz ISM band.

6. The point-to-multipoint wireless access system as defined in claim 5, wherein said sub-millimeter waveband or said millimeter waveband is one of 26-GHz, 28-GHz, 38-GHz and 42-GHz frequency bands.

7. The point-to-multipoint wireless access system as defined in claim 1, wherein said first wireless band is a 5.3-GHz frequency band, and said second wireless band is a 2.4-GHz ISM band.

8. The point-to-multipoint wireless access system as defined in claim 1, wherein said first wireless band is a 60-GHz frequency band, and said second wireless band is a 5-GHz frequency band.

9. The point-to-multipoint wireless access system as defined in claim 1, wherein said first wireless band is a sub-millimeter waveband or a millimeter waveband, and said up-channel uses an optical signal.